



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2011-1165; Directorate Identifier 2011-NM-002-AD; Amendment 39-17030; AD 2012-08-13]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 777-200 and -300 series airplanes. This AD was prompted by reports of two failures of the single-tabbed bracket on the rudder. This AD requires replacing certain single-tabbed bonding brackets in the airplane empennage with two-tabbed bonding brackets. This AD also requires, for certain airplanes, installing new bonding jumpers, and measuring the resistance of the modified installation to verify resistance is within specified limits. We are issuing this AD to prevent failure of the bonding jumper bracket, which could result in loss of lightning protection ground path, which could lead to increased lightning-induced currents and subsequent damage to composite structures, hydraulic tubes, and actuator control electronics. In the event of a lightning strike, loss of lightning ground protection could result in the loss of control of the airplane.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6482; fax: (425) 917-6590; e-mail: [georgios.roussos@faa.gov](mailto:georgios.roussos@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM published in the Federal Register on November 4, 2011 (76 FR 68366). That NPRM proposed to require replacing certain single-tabbed bonding brackets in the airplane empennage with two-

tabbed bonding brackets. That NPRM also proposed to require, for certain airplanes, installing new bonding jumpers, and measuring the resistance of the modified installation to verify resistance is within specified limits.

### **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the proposal (76 FR 68366, November 4, 2011) and the FAA's response to each comment.

### **Support for the NPRM (76 FR 68366, November 4, 2011)**

The Boeing Company and United Airlines both support the NPRM (76 FR 68366, November 4, 2011).

### **Request to Exclude a Requirement**

American Airlines (AA) requested that we revise the NPRM (76 FR 68366, November 4, 2011) to exclude the requirement that states "Put the airplane back to a serviceable condition," which is found in paragraph 3.B.7. of Boeing Service Bulletin 777-55A0014, Revision 1, dated April 1, 2010. AA explained that this requirement does not affect the condition which the proposed AD seeks to address. AA reasoned that, as most operators will accomplish the modifications required by the service information as part of a maintenance visit, returning the airplane to a serviceable condition will not be possible in the context of that statement, but will rather occur at a point in time well after the work is complete.

We disagree to exclude the requirement that states "Put the airplane back to a serviceable condition" in this final rule. The intent of this requirement is to ensure that all work that is performed as directed by the service information is verified to have been completed, and to ensure that modifications have been tested and are fully operational, prior to return to service. We are currently in the process of reviewing issues surrounding which actions in a service bulletin are necessary to be required in an AD in order to

address the identified unsafe condition. Once we have thoroughly examined all aspects of this issue and have made a final determination, we will consider whether our current practice needs to be revised. We have not changed this AD in this regard.

### **Revised Heading**

We have revised the heading for and the wording in paragraph (i) of this AD; this change has not changed the intent of that paragraph.

### **Conclusion**

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed—except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (76 FR 68366, November 4, 2011) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (76 FR 68366, November 4, 2011).

### **Costs of Compliance**

We estimate that this AD affects 87 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

#### **Estimated Costs**

| <b>Action</b> | <b>Labor cost</b>                       | <b>Parts cost</b> | <b>Cost per product</b> | <b>Cost on U.S. operators</b> |
|---------------|---|-------------------|-------------------------|-------------------------------|
| Replacement   | 21 work-hours X \$85 per hour = \$1,785 | \$1,235           | \$3,020                 | \$262,740                     |

#### **Estimated Costs for Concurrent Actions**

| <b>Action</b> | <b>Labor cost</b>                       | <b>Parts cost</b> | <b>Cost per product</b> | <b>Cost on U.S. operators</b> |
|---------------|---|-------------------|-------------------------|-------------------------------|
| Replacement   | 66 work-hours X \$85 per hour = \$5,610 | \$2,668           | \$8,278                 | \$248,340                     |

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2012-08-13 The Boeing Company:** Amendment 39-17030; Docket No. FAA-2011-1165; Directorate Identifier 2011-NM-002-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

The Boeing Company Model 777-200 and -300 series airplanes, certificated in any category, as identified in Boeing Service Bulletin 777-55A0014, Revision 1, dated April 1, 2010.

#### **(d) Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55: Stabilizers.

#### **(e) Unsafe Condition**

This AD was prompted by reports of two failures of the single-tabbed bracket on the rudder. We are issuing this AD to prevent failure of the bonding jumper bracket,

which could result in loss of lightning protection ground path, which could lead to increased lightning-induced currents and subsequent damage to composite structures, hydraulic tubes, and actuator control electronics. In the event of a lightning strike, loss of lightning ground protection could result in the loss of control of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Replacement**

Within 48 months after the effective date of this AD, replace certain single-tabbed bonding brackets in the airplane empennage with two-tabbed bonding brackets, in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-55A0014, Revision 1, dated April 1, 2010.

**(h) Concurrent Requirements**

For airplanes identified in Boeing Service Bulletin 777-55A0010, Revision 1, dated April 17, 2001: Prior to or concurrently with accomplishing the requirements of paragraph (g) of this AD, install new bonding jumpers, and do resistance measurements of the modified installation to verify resistance is within the limits specified in the Accomplishment Instructions of Boeing Service Bulletin 777-55A0010, Revision 1, dated April 17, 2001. Do the actions in accordance with the Accomplishment Instructions of Boeing Service Bulletin 777-55A0010, Revision 1, dated April 17, 2001.

**(i) Credit for Previous Actions**

(1) This paragraph provides credit for replacing certain single-tabbed bonding brackets with two-tabbed bonding brackets, as required by paragraph (g) of this AD, if the replacement was performed before the effective date of this AD using Boeing Alert Service Bulletin 777-55A0014, dated May 8, 2008.

(2) This paragraph provides credit for installing new bonding jumpers, and doing resistance measurements of the modified installation that verify the resistance is within

the specified limits, as required by paragraph (h) of this AD, if the installation and measurements are performed before the effective date of this AD using Boeing Alert Service Bulletin 777-55A0010, dated October 26, 2000.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to:

[9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Georgios Roussos, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, Seattle Aircraft Certification Office (ACO), FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; Phone: (425) 917-6482; fax: (425) 917-6590; e-mail: [georgios.roussos@faa.gov](mailto:georgios.roussos@faa.gov).

**(l) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51:

- (i) Boeing Service Bulletin 777-55A0010, Revision 1, dated April 17, 2001.
- (ii) Boeing Service Bulletin 777-55A0014, Revision 1, dated April 1, 2010.



(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail [me.boecom@boeing.com](mailto:me.boecom@boeing.com); Internet <https://www.myboeingfleet.com>

(3) You may review copies of the service information at the FAA. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on April 12, 2012.

John P. Piccola,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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